

FABRICATION OF SUB-WAVELENGTH STRUCTURES

Abstract

A method for the manufacture of sub-wavelength structures on substrates is provided, wherein a deformable photoresist is arranged on a substrate. A hydrophilic stamp (made of a material having a higher refractive index than the photoresist) is used to imprint wave guiding structures into the deformable photoresist. Light is coupled into the wave guiding structures to create evanescent waves to expose the photoresist. By imprinting critical dimensions on the substrate and subsequently exposing the resist by means of optical structures integrated in the stamp, those critical dimensions can be further reduced.